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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/065,636	11/05/2002	Qi Wang	6938cip	5965

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EXAMINER

EGWIM, KELECHI CHIDI

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 02/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/065,636

Applicant(s)

WANG ET AL.

Examiner

Dr. Kelechi C. Egwim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-40 is/are pending in the application.
- 4a) Of the above claim(s) 23-25, 27, 30, 32, 37 and 40 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21, 22, 26, 28, 29, 31, 33-36, 38 and 39 is/are rejected.
- 7) ☒ Claim(s) 28 and 29 is/are objected to.
- 8) ☒ Claim(s) 21-40 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Election/Restrictions

1. This application contains claims directed to the following patentably distinct species in each of the following genii of the claimed invention:

Genus A

- a. Wherein the stabilizer is a moiety of a polymer (claims 27 and 37).
- b. Wherein the stabilizer is a non-polymeric free molecule (claims 28-30 and 38-40).

Genus B

- a. Wherein E = O (claims 22, 29, 30 and 34-40).
- b. Wherein E = N (claim 25).

Genus C

- a. Wherein R = OR' (claims 23, 30 and 40).
- b. Wherein both R's join to form an aromatic ring (claim 24).
- c. Wherein R is H (claims 36 and 39).

Genus D

- a. Wherein the antioxidant is added during polymerization (claim 32).

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- b. Wherein the antioxidant is added after polymerization during the compounding stage (claim 33).

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species from each of the forgoing genii for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claim 21 is generic to all genii.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over

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the prior art, the evidence or admission may be used in a rejection under 35

U.S.C. 103(a) of the other invention.

2. During a telephone conversation with Richard D. Fuerle on 1/22/04, a provisional election was made with traverse to prosecute the invention of species Ab, Ba, Cc and Db corresponding to claims 21, 22, 26, 28, 29, 31, 33-36, 38 and 39. Affirmation of this election must be made by applicant in replying to this Office action. Claims 23-25, 27, 30, 32, 37 and 40 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to non-elected inventions.

3. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Objections

4. Claims 28 and 29 are objected to because they are missing periods at the ends to the claims. Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

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The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 21, 22, 26, 28, 29, 31 and 33 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention. There is a lack of disclosure in the specification to enable one skilled in the art to obtain or make **all** of the antioxidants being claimed. There is no underlying reference either in the specification or in the record to where all the compounds may be obtained commercially or how the "commercially available" compounds may be prepared.

A reasonable correlation must exist between the scope of that is claimed and the scope of enablement provided by applicant's specification to the person of ordinary skill in the art. Applicant does not provide enablement for all the compounds within the scope of applicants claims and it would require under experimentation for a routineer to prepare at least some of the compounds representative in the scope of the claims based on applicant's disclosure.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 21, 22, 26, 28, 29, 31 and 33-36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Claims 21 and 34, from which the balance of the claims depend, contain definitions for a variety of variables in the structures of the antioxidant compounds. However, within the definitions for the variables, it is unclear which values belong to or correspond to which variable or variables since the variables are separated by commas and the values within each variable are also separated by commas.

When reciting several values for several variables in the same sentence, wherein commas separate the values themselves, the grouping of definitions/values for each variable should be separated by semi-colons so as to distinguish between the values of one variable and the values of another.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 21, 22, 26, 28, 29, 31 and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Fielding et al. (USPN 4,082,716)

In col. 1, lines 50-52 and col. 2, lines 1-3, Fielding et al. teach a process of combining polymers with 0.5 to 15% of phthalide, in order to produce improved polymer compositions.

Thus, the requirements for rejection under 102(b) are met.

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10. Claims 21, 22, 26, 28, 29 and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Jaeger (USPN 1,941,474).

In page 1, lines 80-106, page 3, lines 3-9, and Examples 2, 5, and 6, Jaeger teaches a process of combining polymers with about 3 to 10% of a variety of phthalides, in order to produce improved polymer compositions.

Thus, the requirements for rejection under 102(b) are met.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 31, 38 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jaeger.

While Jaeger does not teach the specific polymers recited in these claims, it still would have been obvious to one having ordinary skill in the art at the time the invention was made to use the compounds with these polymers because, in page 3, lines 3-91, Jaeger teach that these compounds are useful with other species of resins outside of those specifically recited in the reference. The species of a genus is prima facie obvious. It is applicant's burden to establish that the resinous species recited in these claims provide some unexpected results over the applied reference(s). See *In re Woodroff*, 16 USPQ2d 1934 (Fed. Cir. 1990); *In re Susi* 169 USPQ 423 (CCPA 1971).

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13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Kelechi C. Egwim whose telephone number is (703) 306-5701. The examiner can normally be reached on M-T (7:30-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (703) 308-2450. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9310.

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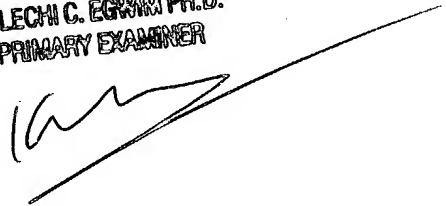
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

KELECHI C. EGWIM PH.D.
PRIMARY EXAMINER

KCE

A handwritten signature in black ink, appearing to be 'Kelechi C. Egwim', is written over a diagonal line that extends from the bottom left towards the top right.